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Subject: CPAI Alternative Monitoring Request Supplement Response

Dear Ms. McFadden:

This letter responds to the EPA's letter dated February 21, 2018, requesting additional information to support the ConocoPhillips Alaska, Inc. (CPAI) Alternative Monitoring Request (AMR) for the Well Site Leak Detection and Repair (LDAR) requirements established within the New Source Performance Standards for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015 (Subpart OOOOa, NSPS OOOOa, or Rule).

The additional information requested is provided below; however, the AMR has less immediacy considering the EPA's March 12, 2018 amendments, which modify the initial and routine monitoring survey frequencies for operations on the Alaska North Slope under NSPS Subpart OOOOa. So long as those amendments are in effect, CPAI will comply with those requirements. If those amendments become not effective and the original promulgated rule becomes the measure of compliance due to legal or other regulatory action, then CPAI will use the procedures described in our original August 31, 2017 AMR letter (as supplemented by this letter). CPAI does not intend to utilize the AMR procedures during the time the NSPS OOOOa amendments of March 12, 2018 are in effect.

Background

On August 31, 2017, CPAI submitted an AMR seeking approval to use audible, visual, and olfactory (AVO) inspections to satisfy the leak detection requirements established under 40 CFR §60.5397a for equipment that cannot be surveyed using the Rule's prescribed technologies (optical gas imaging [OGI] or EPA Method 21 [M21] analyzers) due to the ambient conditions on the Alaska North Slope. In a response letter dated February 21, 2018, the EPA requested the following additional information:

1. Information demonstrating AVO will be an effective method of leak detection; and
2. Explanation of procedures and training CPAI will use to ensure effectiveness of AVO inspections

CPAI Responses

1. *AVO Effectiveness*

CPAI is only requesting approval to conduct AVO inspections on fugitive components located in "non-heated or open environments" (NHE) during the period when ambient temperatures are typically too cold to operate OGI or M21 analyzers.

North Slope facilities containing production fluids operate at elevated temperatures and pressures. Any liquids or gases exposed to cold temperatures during a "leak" readily exchange heat with the ambient environment. Consequently, there is a noticeable visual contrast that can be visually identified when a material is escaping to the atmosphere. Additionally, the exposure of process fluids to atmosphere during these cold weather periods will readily create other visual indications such as misting, clouding, hydrate formation, and equipment staining. This makes fugitive components in NHE operating areas an ideal candidate for visual identification of leaks.

North Slope production fluids contain condensate and other "light end" components that CPAI monitors closely for safety and compliance programs. These components have a distinct petroleum hydrocarbon smell. Personnel working in and among these facilities have heightened awareness of the potential for leaks inside enclosed operating areas, which would generate hazardous conditions. So, the presence of these compounds makes "leaks" readily discoverable by olfactory detection.

Finally, as mentioned above, production lines operate at elevated pressures. If a leak develops in a high-pressure line, audible hissing can be perceived by the AVO inspectors.

2. *Procedures and Training*

As part of its existing NSPS OOOOa LDAR program, CPAI has already established a training program for the various organizational groups (e.g., OGI inspectors, operations, maintenance) involved in the program.

As part of the AMR, CPAI will create and implement a new NSPS OOOOa-specific procedure outlining the expectations for conducting AVO inspections to promote consistency and the quality of inspections. Examples of elements that will be included in the NSPS OOOOa AVO procedure include:

A. Overview of the NSPS OOOOa LDAR requirements
B. Areas of the well site that are permitted to use AVO inspections
C. What constitutes fugitive emissions during an AVO inspection
D. AVO inspection instructions
E. AVO inspection frequencies
F. Instructions for initiating repairs if fugitive emissions are identified during AVO inspections
G. Recordkeeping requirements

CPAI will create a new training module that will be required for all personnel conducting AVO inspections under NSPS OOOOa. Personnel performing AVO inspections will be required to undergo initial and refresher training to ensure only qualified personnel are used.

CPAI appreciates EPA's consideration of our AMR. If you have any additional questions, please feel free to contact me at (907) 265-6937 or airqualitycoordinator@conocophillips.com.

Sincerely,

on behalf of

Laura K. Perry
Coordinator – Air Quality

cc: (electronic)
Dave Bray (EPA)
John Pavitt (EPA)
Marcia Combes (EPA)